

Title (en)  
ELECTROPHORETIC DISPLAY FILM FOR ANTI-COUNTERFEIT APPLICATION

Title (de)  
ELEKTROPHORETISCHER ANZEIGEFILM ZUR FÄLSCHUNGSSICHEREN ANWENDUNG

Title (fr)  
FILM À AFFICHAGE ÉLECTROPHORÉTIQUE POUR APPLICATION ANTI-CONTREFAÇON

Publication  
**EP 3044631 A4 20170412 (EN)**

Application  
**EP 14842726 A 20140902**

Priority

- US 201314021847 A 20130909
- US 2014053716 W 20140902

Abstract (en)  
[origin: US2015070751A1] The present invention is directed to an electrophoretic display film which can be controlled to malfunction permanently within a period of time. It provides an elegant method to utilize an electrophoretic film for anti-counterfeit purposes. The concept involves the removal of strong barrier layer(s) from the film to allow the solvent in the electrophoretic fluid within the film to evaporate through weak barrier layer(s), and within a period of time, the performance of the display film will be significantly degraded and the film cannot be re-used.

IPC 8 full level  
**G02F 1/167** (2019.01)

CPC (source: CN EP KR US)  
**B42D 25/00** (2014.10 - KR US); **B42D 25/30** (2014.10 - KR US); **G02F 1/167** (2013.01 - CN EP KR US); **G02F 1/1681** (2018.12 - KR); **G02F 1/1681** (2018.12 - CN EP US); **G02F 2201/50** (2013.01 - CN EP KR US); **G02F 2201/501** (2013.01 - CN EP KR US); **G02F 2201/503** (2013.01 - CN KR); **G02F 2202/04** (2013.01 - CN KR)

Citation (search report)

- [X] US 2005264869 A1 20051201 - CHEN YAJUAN [US], et al
- [X] US 2007024953 A1 20070201 - KANBE SADA O [JP]
- [A] DE 102007029566 A1 20090102 - BUNDESDRUCKEREI GMBH [DE]
- See references of WO 2015034829A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2015070751 A1 20150312; US 9188829 B2 20151117**; CN 105531622 A 20160427; CN 105531622 B 20170609; CN 107045245 A 20170815; CN 107045245 B 20190924; EP 3044631 A1 20160720; EP 3044631 A4 20170412; EP 3044631 B1 20180829; HK 1221994 A1 20170616; JP 2016530573 A 20160929; JP 2018022177 A 20180208; JP 6216462 B2 20171018; JP 6462811 B2 20190130; KR 101774720 B1 20170904; KR 101987567 B1 20190610; KR 20160053998 A 20160513; KR 20170102380 A 20170908; TW 201514598 A 20150416; TW I541582 B 20160711; WO 2015034829 A1 20150312

DOCDB simple family (application)  
**US 201314021847 A 20130909**; CN 201480049448 A 20140902; CN 201710186985 A 20140902; EP 14842726 A 20140902; HK 16110166 A 20160825; JP 2016540314 A 20140902; JP 2017182275 A 20170922; KR 20167009280 A 20140902; KR 20177024116 A 20140902; TW 103130505 A 20140904; US 2014053716 W 20140902